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Claims

1. Exhaust gas turbocharger for an internal combustion engine, having an exhaust gas turbine (4) in the exhaust gas train (3) and a compressor (6) in the intake tract (5), whereby a compressor wheel (16) is disposed in a compressor wheel inflow channel (14), which wheel is driven by a turbine wheel of the exhaust gas turbine (4), having an adjustable throttle device upstream from the compressor wheel (16), for regulating the air mass stream to be supplied, characterized in that the throttle device comprises a first guide grid (12) and a second guide grid (13) in the inflow region to the compressor wheel (16), whereby each guide grid (12, 13) has an adjustable grid geometry.
2. Exhaust gas turbocharger as recited in claim 1, characterized in that the two guide grids (12, 13) are spaced axially apart.
3. Exhaust gas turbocharger as recited in claim 1 or 2, characterized in that the grid geometries comprise one guide grid ring (18, 24), in each instance, having guide vanes and an accommodation matrix (19, 25) for accommodating the guide grid rings (18, 24).
4. Exhaust gas turbocharger as recited in one of claims 1 to 3, characterized in that

the setting movements of the grid geometries of the two guide grids (12, 13) are coupled by way of a common activation organ.

5. Exhaust gas turbocharger as recited in claim 4, characterized in that the common activation organ comprises an axially adjustable sliding sleeve (17).

6. Exhaust gas turbocharger as recited in claim 3 and 5, characterized in that the sliding sleeve (17) has an accommodation matrix (19) in the region of a first axial face, and a guide grid ring (24) in the region of the opposite axial face.

7. Exhaust gas turbocharger as recited in one of claims 1 to 6, characterized in that each grid geometry has an activation organ assigned to it, in each instance.

8. Exhaust gas turbocharger as recited in claim 7, characterized in that the two activation organs are configured as a sliding sleeve (17, 26), in each instance.

9. Exhaust gas turbocharger as recited in claim 7 or 8, characterized in that an activation organ (26) forms a spin surface (28) for the air mass stream that flows through, in the opened position of a guide grid.

10. Exhaust gas turbocharger as recited in one of claims 1 to 9,

characterized in that

an air collection chamber (15) that communicates with the compressor wheel inflow channel (14) lies ahead of the compressor wheel (16), whereby at least one guide grid (12, 13) is disposed in the transition from the air collection chamber to the compressor wheel inflow channel.

11. Exhaust gas turbocharger as recited in claim 10, characterized in that

the air collection chamber (15) surrounds the compressor wheel inflow channel (14) radially, at least in part.

12. Exhaust gas turbocharger as recited in one of claims 1 to 11,

characterized in that

a guide grid (12) has at least two segments (24a, 24b, 24c) having different grid geometries over its axial expanse.

13. Exhaust gas turbocharger as recited in claim 12, characterized in that

the segments (24a, 24b, 24c) each have a different number of guide grid vanes.

14. Exhaust gas turbocharger as recited in claim 12, characterized in that

the guide vanes of the guide grid (12) continuously undergo a shortening of the chord length with an increasing vane height, proceeding from a bottom vane height.